

## Port of Tauranga Methyl Bromide Fumigation Monitoring – Interim Report 16

Fumigation and venting details can be found in Table 1.

Table 1: Monitoring details

Date	03/12/2020
Fumigation Type	Ship Hold
Fumigation amount (kg) – during 1hr sampling	523
Fumigation Location	9 Berth (Rose Harmony)
Venting Time	18:37-02:05 (approx.)
*Sample time (1hour)	18:41-19:44 (Hold 1)
*Predominant wind direction over 1 hour sample	W/SW
*Average wind speed over 1 hour period	3.5m/s
Sample date (24 hour)	03/12/2020 – 04/12/2020
Sample time/s (24 hour)	18:32-18:43 (sample times were slightly over 24 hours)
Other venting in the 24 hour period	Holds 2, 3, 4 and 5

\*1 hour Sample times differ from the total venting time i.e. venting went on for longer than the 1 hour sample period. Sample start times were staggered from 18:41, 18:42, 18:43 and 18:44


\*From observations at the time of sampling, measured met data is provided in a separate document.

Table 2: Fumigation and Venting Details 03/12/2020

Hold (South to North)	Log Volume (JAS)	Hold Volume (m3)	Methyl Bromide Used (kg)	Pre-vent Concentration (ppm)	Methyl Bromide released (kg)
1	-	8165.9	523	Not Recorded by Genera	Not Recorded by Genera
2	-	10029.5	642		
3	-	10059.2	644		
4	-	10060.3	644		
5	-	9734.7	623		

Map 1: Fumigation and Sampling Locations 03/12/2020

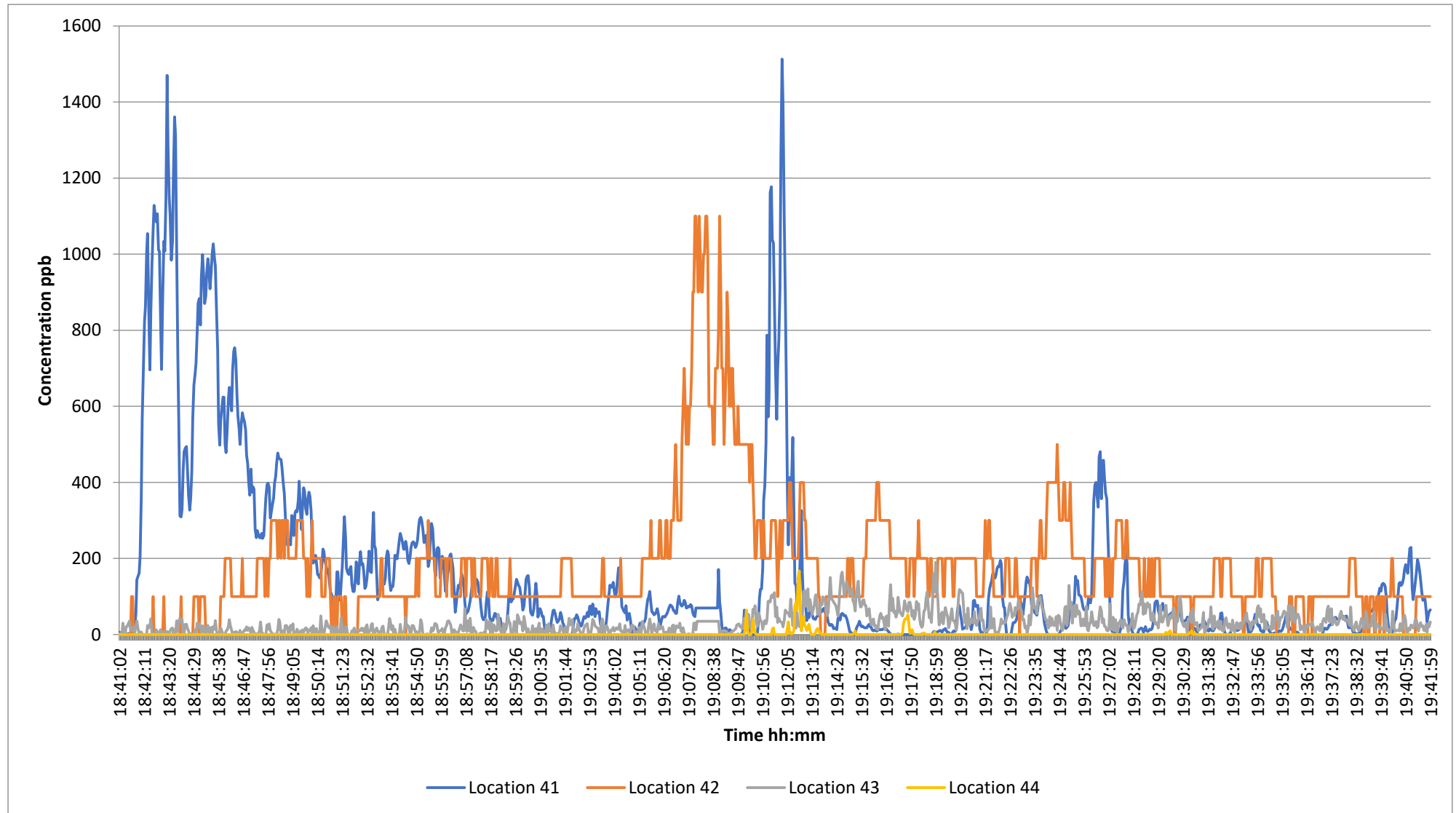


 Berth 9 ship venting (please note locations are only

 Sample locations

1-hour canister sampling and TVOC monitoring was undertaken at locations 41 (18:44-19:44), 42 (18:43-19:43), 43 (18:41-19:41) and 44 (18:42-19:42). 24-hour canister sampling was also undertaken at location 42 (18:35-18:43) and 43 (18:32-18:41). The average and peak TVOC measurements for the sampling period are shown below in Table 3 and Graphs 1-5. Canister sampling results can be found in Table 4.

Graph 1: Real-time Total Volatile Organic Compound (TVOC) measurements at all 1-hour sampling locations on the 03/12/2020



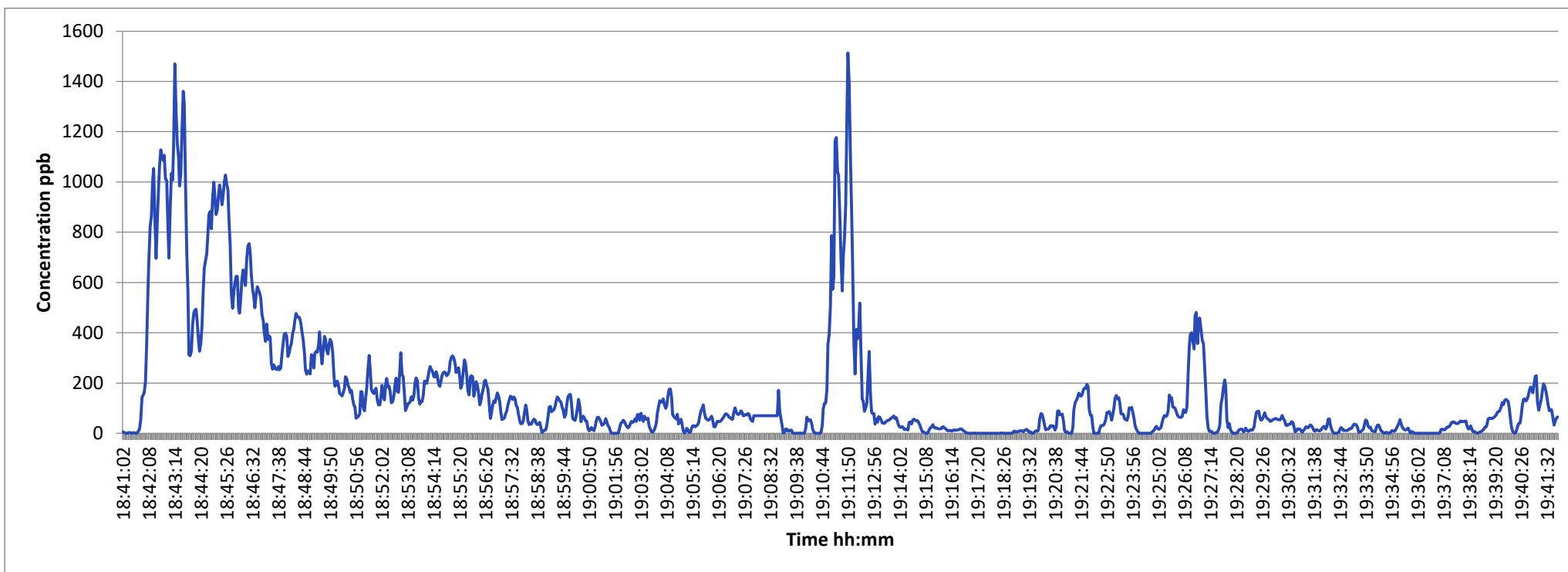
Notes: concentrations have not been corrected for methyl bromide and measurements will account for all VOC's including methyl bromide

Table 3: Average and peak real-time TVOC measurements on the 03/12/2020

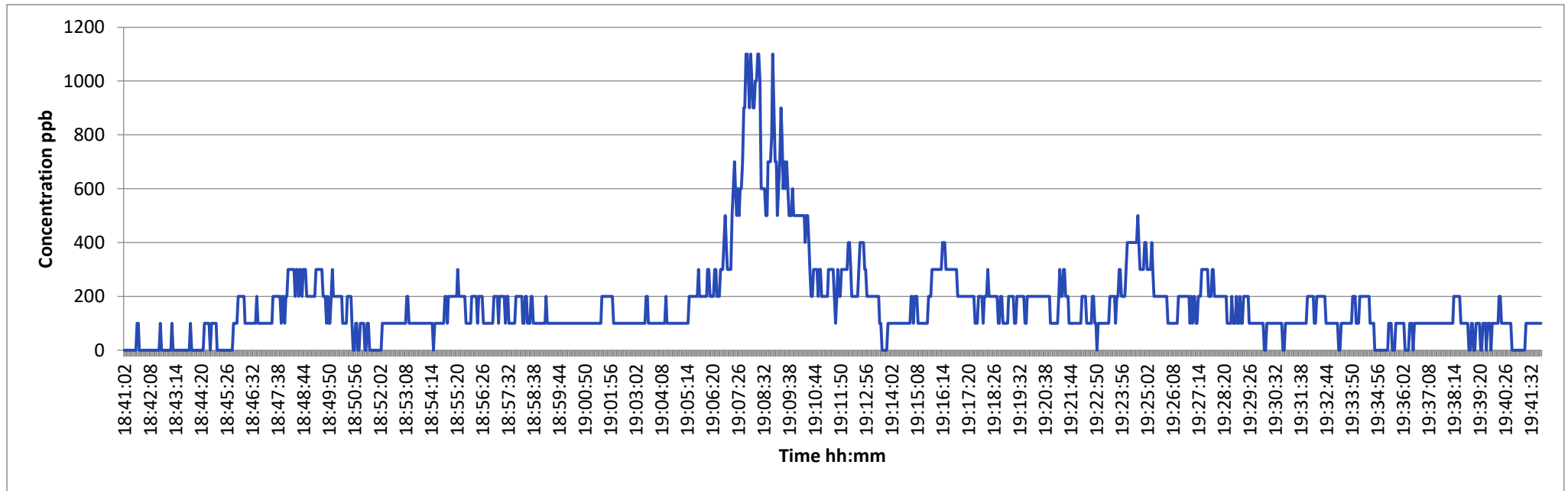
Location (as shown on Map 1)	Average TVOC measured over sampling period (ppb)*	Peak TVOC measured over sampling period (ppb)*
41 Hull Road Gatehouse	157	1513
42 Boundary in C3 yard	171	1100
43 On Port (Coal Chute)	31	190
44 Boundary (Coal Chute)	1	167

\*Concentrations have not been corrected for methyl bromide

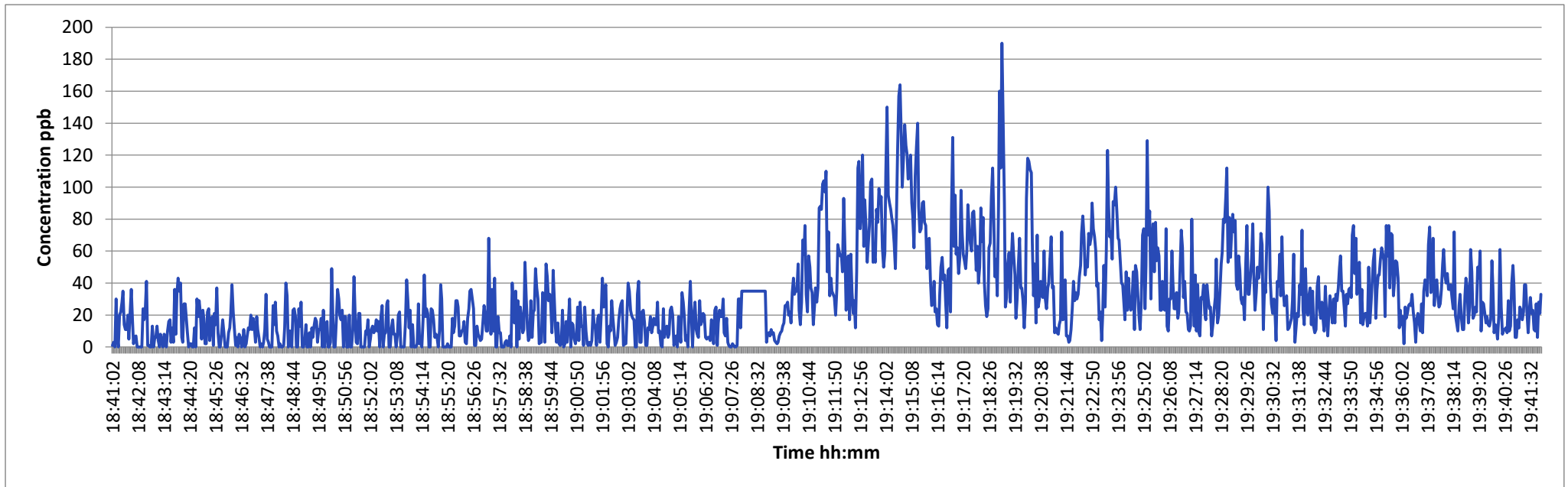
Graph 2: TVOC concentrations measured at Location 41 – 03/12/20



Graph 3: TVOC concentrations measured at Location 42 – 03/12/20



Graph 4: TVOC concentrations measured at Location 43 – 03/12/20



Graph 5: TVOC concentrations measured at Location 44 – 03/12/20

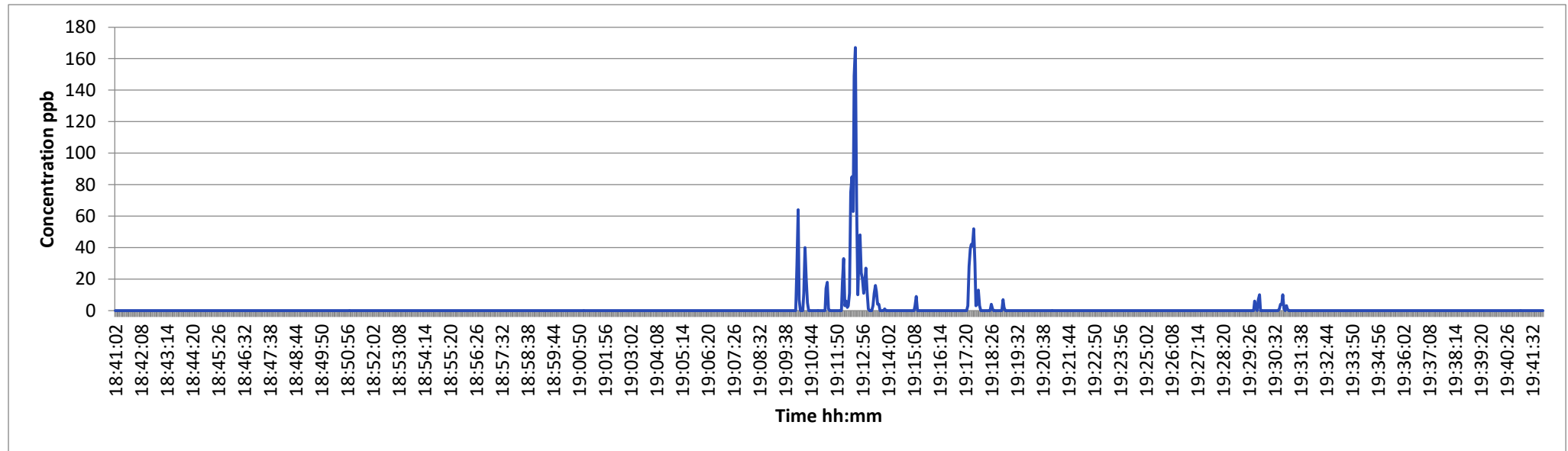


Table 4: 1-hour and 24-hour Canister Sampling Results 03/12/2020

Location (as shown on map above)		Sample Number	Sample length	Sample Time	Canister size	Methyl bromide Concentration (ppbv)
41	Hull Road Gatehouse	19827-0312-41	1 hour	18:44-19:44	1.4L	206±32
42	Boundary in C3 yard	19827-0312-42	1 hour	18:43-19:43	1.4L	235±36
42A		19827-0312-42A	24 hours	18:35-18:43	6L	52.6±8.1
43	On Port (Coal Chute)	19827-0312-43	1 hour	18:41-19:41	1.4L	21.4±3.3
43A		19827-0312-43A	24 hours	18:32-18:41	6L	103±16
44	Boundary in C3 yard (Coal Chute)	19827-0312-44	1 hour	18:42-19:42	1.4L	112±18

The 24 hour canister sample times ran for slightly longer than 24 hours and the 1 hour canister sample times are 1 minute apart.